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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,708	08/05/2003	Juan R. Loaiza	OI7011443001	1877

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EXAMINER	
LY, CHEYNE D	
ART UNIT	PAPER NUMBER
2168	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE.
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/635,708	LOAIZA ET AL.	
	Examiner	Art Unit	
	Cheyne D. Ly	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15,18-23,26,29-33,36 and 39-43* is/are rejected.

7)☒ Claim(s) *16,17,24,25,27,28,34,35,37,38,44 and 45* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *June 16, 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicants' arguments filed October 16, 2006 have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.
2. The Terminal Disclaimer has been entered.
3. Claims 15-45 are examined on the merits.
4. NON-FINAL.

RESPONSE TO ARGUMENTS

5. On pages 8-9, Applicant argues "Wiener does not teach or suggest establishing a view of a selected one or more database recovery logs...There is nothing in this section that teaches or suggests using a recovery log or that a view is used for system crash recoveries." Applicant's argument is not persuasive because Wiener describes detecting changes and modifications to the data sources via snapshot monitors and views. For example, Wiener proposes "adding IBM's DataCapture to the system; DataCapture is a log-based monitor which reads log for DB2 and generates a table of source changes" (page 5, column 2, section 3.7). Further, Wiener proposed the use of materialized view for system crash recoveries (page 7, column 2, 2nd paragraph). Therefore, as motivated by Triantafillou, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery

algorithm of Wiener and Triantafillou using materialized views of recovery logs for improved data access and availability.

6. On pages 9-11, Applicant argues "there is no motivation to combine the references because Triantafillou describes the "decentralization of data...", while, Wiener describes "a prototype to integrate data and centralize data..." Further, Applicant argues "Wiener would render Triantafillou unsatisfactory for its intended purpose of recovery protocols for large-scale systems with replicated data." Applicant's argument has been fully considered; however, Wiener describes a **distributed system** wherein the required functionality can be divided among cooperating distributed CORBA objects (Abstract etc.). Wiener describes a modular and scalable system (page 2, column 2, lines 7-10) wherein the **data is readily available** for user access (page 1, column 1, Introduction section). Triantafillou describes a **distributed system** which improves the existing recovery protocol to improve **data access and availability** as directed to system failures (Abstract etc.). Therefore, Triantafillou and Wiener describe analogous systems to improve prior system to address the same problem of data access and availability as directed to system failures. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views of recovery logs for improved data access and availability.
7. Specific to the argument that "Wiener would render Triantafillou unsatisfactory for its intended purpose of recovery protocols for large-scale systems with replicated data", the argument of counsel cannot take the place of evidence in the record. In re Schulze, 346

F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997). Applicant is invited to provide evidentiary support that the system of Triantafillou and Wiener is unsatisfactory for its intended purpose, when, each respectively describe analogous systems and address the same problem in the prior systems. See MPEP § 716.01(c) for examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration.

8. On page 11, Applicant's argument directed to the 103 rejection described by Triantafillou (1996) taken with Wiener et al. (1996) (Wiener hereafter), and further in view of Ramakrishnan (1998) is not persuasive as discussed above.

CLAIM REJECTIONS - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 15, 19, 21-23, 26, 31-33, 36, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Triantafillou (1996) taken with Wiener et al. (1996) (Wiener hereafter).

12. In regard to claims 15 and 22, Triantafillou describes a method of accessing database (page 814, column 1, section 3.1.1) recovery logs (page 813, column 1, 2nd paragraph), said method comprising:

    a. Selecting one or more of said database recovery logs to access (page 813, column 1, last paragraph);

13. However, Triantafillou does not describe the limitation of establishing a view of said one or more database recovery logs; insulating said view from a format of said one or more database recovery logs; issuing a database statement to query said view; and retrieving data from said one or more database recovery logs in response to said database statement.

14. Triantafillou describes improvements to the existing recovery protocol to improve data access and availability as directed to system failures (Abstract etc.). Wiener proposed the use of materialized view for system crash recoveries (page 7, column 2, 2nd paragraph). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability.

15. Wiener describes:

a. establishing a view of said one or more database recovery logs (page 3, section 2.2);

b. insulating said view from a format of said one or more database recovery logs (page 6, column 1, lines 3-12);

c. issuing a database statement to query said view (page 5, columns 1-2, section 3.5);

d. and retrieving data from said one or more database recovery logs in response to said database statement (page 5, columns 1-2, section 3.5).

16. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability.

17. In regard to claim 19, Wiener describes said database statement is a SQL statement (page 6, section 5, columns 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability.

18. In regard to claim 21, Wiener describes said view is a relational view comprising at least one row and at least one column (page 6, section 5, columns 1-2). It is noted the SQL statements cited are directed to tables comprising rows and columns. Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability.

19. In regard to claim 23, Wiener describes said view does not utilize database base storage space (page 3, section 2.2). The inclusion of Alexander et al. is not being used as prior art, but only to support that it is well know in the art that a "view is a relational table that does not exist in physical storage but is derived from one or more base tables (Alexnder et al., column 2, lines 41-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability.

20. In regard to claims 26, 31-33, 36, and 41-43, Wiener describes a computer program and system for implementing the method cited above (page 6, column 1, section 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability.

21. Claims 18, 20, 29, 30, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Triantafillou (1996) taken with Wiener et al. (1996) (Wiener hereafter) as applied to claims 15, 19, 21-23, 26, 31-33, 36, and 41-43 above, and further in view of Ramakrishnan (1998).

22. Triantafillou and Wiener describe the limitations of claims 15, 19, 21-23, 26, 31-33, 36, and 41-43 as cited above. However, Triantafillou and Wiener do not describe the limitation of "wherein time and/or date boundaries are established for said recovery logs."

23. Triantafillou describes improvements to the existing recovery protocol to improve data access and availability as directed to system failures (Abstract etc.). Wiener proposed the use of materialized view for system crash recoveries (page 7, column 2, 2nd paragraph). Ramakrishnan describes the well known in the art system crash recoveries as directed to databases (page 529, section 18.3). Therefore, one of ordinary skill in the art at the time of the invention would have been motivated by Triantafillou to improve the existing recovery protocol in databases with the system crash recovery algorithm of Wiener as directed to the database described by Ramakrishnan.

24. In regard to claims 18, 29, and 39 Ramakrishnan describes the time boundaries are established for said recovery logs (pages 529-533, Figure 18.4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and

Triantafillou using materialized views for improved data access and availability of databases described by Ramakrishnan.

25. In regard to claims 20, 30, and 40, Ramakrishnan describes the said recovery logs comprise an undo log and/or a redo log (pages 529-533, Figure 18.4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve the existing recovery protocol with the system crash recovery algorithm of Wiener and Triantafillou using materialized views for improved data access and availability of databases described by Ramakrishnan.

CONCLUSION

26. Claims 16, 17, 24, 25, 27, 28, 34, 35, 37, 38, 44, and 45 are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

27. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been

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28. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199. The USPTO's official fax number is 571-272-8300.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo, can be reached on (571) 272-3642.

C. Dune Ly /
Patent Examiner
1/7/07